Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/9/2021
Case Description: Hollipat Permanent Parking Lot

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Parking Lot	Residentia	65	65	65

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Backhoe	No	40		77.6	175	0
Excavator	No	40		80.7	175	0
Front End Loader	No	40		79.1	175	0

Results

		Calculated (dBA)	
Equipment		*Lmax	Leq
Backhoe		66.7	62.7
Excavator		69.8	65.8
Front End Loader		68.2	64.2
	Total	69.8	69.2

*Calculated Lmax is the Loudest value.

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Report date: 7/9/2021
Case Description: Hollipat Permanent Parking Lot

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Parking Lot	Residential	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	240	0
Excavator	No	40		80.7	240	0
Front End Loader	No	40		79.1	240	0

Calculated (dBA)

Equipment	*Lmax	Leq
Backhoe	63.9	60
Excavator	67.1	63.1
Front End Loader	65.5	61.5
Total	67.1	66.5

*Calculated Lmax is the Loudest value.

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Report date: 7/9/2021
Case Description: Hollipat Permanent Parking Lot

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Parking Lot	Residential	65	65	65

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	292	0
Excavator	No	40		80.7	292	0
Front End Loader	No	40		79.1	292	0

Calculated (dBA)

Equipment	*Lmax	Leq
Backhoe	62.2	58.3
Excavator	65.4	61.4
Front End Loader	63.8	59.8
Total	65.4	64.8

*Calculated Lmax is the Loudest value.

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 84.1 - 2021/07/08 16:58:02
- Level Range : 40-100
- SEL : 97.1
- Leq : 67.6
-

No.s	Date Time	(dB)				
1	2021/07/08 16:47:30	58.5	57.8	57.7	57.0	58.0
6	2021/07/08 16:47:45	57.2	58.5	56.8	57.3	56.8
11	2021/07/08 16:48:00	56.8	57.4	66.9	70.6	68.4
16	2021/07/08 16:48:15	66.0	68.4	67.5	70.8	62.7
21	2021/07/08 16:48:30	55.5	55.1	72.3	61.5	54.8
26	2021/07/08 16:48:45	70.7	60.0	51.2	56.6	68.5
31	2021/07/08 16:49:00	69.2	69.6	72.5	68.2	62.0
36	2021/07/08 16:49:15	57.6	57.6	57.1	57.8	58.0
41	2021/07/08 16:49:30	62.2	60.8	55.2	53.7	54.9
46	2021/07/08 16:49:45	53.6	70.5	70.5	71.6	69.5
51	2021/07/08 16:50:00	73.6	64.1	71.6	63.4	55.8
56	2021/07/08 16:50:15	53.7	59.3	72.3	71.6	68.3
61	2021/07/08 16:50:30	68.1	69.0	64.5	56.6	51.4
66	2021/07/08 16:50:45	52.9	52.9	52.6	51.4	51.7
71	2021/07/08 16:51:00	57.0	64.7	82.5	71.8	60.0
76	2021/07/08 16:51:15	54.6	57.8	70.5	69.9	70.1
81	2021/07/08 16:51:30	69.1	71.1	73.0	73.4	69.6
86	2021/07/08 16:51:45	67.1	65.6	59.9	58.2	58.5
91	2021/07/08 16:52:00	59.1	59.5	59.9	58.6	57.9
96	2021/07/08 16:52:15	59.5	59.7	61.3	65.1	66.4
101	2021/07/08 16:52:30	69.1	68.4	68.4	67.9	69.1
106	2021/07/08 16:52:45	64.8	60.0	56.3	55.9	55.9
111	2021/07/08 16:53:00	57.8	56.7	56.3	56.2	56.2
116	2021/07/08 16:53:15	56.2	63.2	66.1	67.2	62.6
121	2021/07/08 16:53:30	59.7	58.2	65.7	70.6	68.3
126	2021/07/08 16:53:45	68.3	71.9	68.8	65.8	60.7
131	2021/07/08 16:54:00	65.7	59.8	58.9	56.5	58.8
136	2021/07/08 16:54:15	62.2	76.2	72.3	70.6	69.9
141	2021/07/08 16:54:30	63.4	59.9	60.3	66.2	71.7
146	2021/07/08 16:54:45	70.2	71.0	70.1	69.9	67.2
151	2021/07/08 16:55:00	64.5	66.9	69.8	61.8	59.6
156	2021/07/08 16:55:15	59.5	62.0	68.7	67.1	61.7
161	2021/07/08 16:55:30	59.8	59.7	58.6	58.7	56.8
166	2021/07/08 16:55:45	57.8	58.9	61.8	66.5	70.0
171	2021/07/08 16:56:00	69.9	70.5	69.7	66.6	62.9
176	2021/07/08 16:56:15	69.0	69.2	59.6	53.9	52.6
181	2021/07/08 16:56:30	58.0	67.8	71.4	71.0	68.2
186	2021/07/08 16:56:45	69.2	68.3	61.4	59.4	69.4
191	2021/07/08 16:57:00	63.1	66.0	66.2	59.1	56.2
196	2021/07/08 16:57:15	57.6	53.7	54.5	53.6	53.2
201	2021/07/08 16:57:30	55.4	58.8	56.8	53.6	53.5
206	2021/07/08 16:57:45	61.5	70.2	71.5	71.2	63.3
211	2021/07/08 16:58:00	84.1	74.3	73.8	68.0	70.0
216	2021/07/08 16:58:15	61.5	71.4	64.0	58.6	57.7
221	2021/07/08 16:58:30	57.2	63.9	68.4	66.8	68.9
226	2021/07/08 16:58:45	69.5	71.3	63.0	57.6	59.4
231	2021/07/08 16:59:00	56.4	66.7	69.1	66.2	71.6
236	2021/07/08 16:59:15	61.2	54.4	51.8	50.0	50.5
241	2021/07/08 16:59:30	52.5	70.1	62.0	60.5	73.8
246	2021/07/08 16:59:45	75.7	67.3	69.1	66.0	64.6
251	2021/07/08 17:00:00	59.1	60.9	60.9	56.3	53.6
256	2021/07/08 17:00:15	51.4	52.3	54.0	57.0	57.3
261	2021/07/08 17:00:30	57.2	60.7	68.9	69.2	72.4
266	2021/07/08 17:00:45	71.6	75.9	68.9	65.0	60.6
271	2021/07/08 17:01:00	61.0	65.0	71.4	66.1	56.3
276	2021/07/08 17:01:15	54.5	68.4	58.1	51.5	52.4
281	2021/07/08 17:01:30	65.9	71.6	71.6	73.5	69.3
286	2021/07/08 17:01:45	69.5	59.6	52.4	50.2	53.7
291	2021/07/08 17:02:00	67.4	68.7	68.2	61.2	69.6
296	2021/07/08 17:02:15	64.3	74.2	68.2	59.7	57.5

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 79.0 - 2021/07/08 17:27:28
- Level Range : 40-100
- SEL : 94.3
- Leq : 64.8
-

No.s	Date Time	(dB)				
1	2021/07/08 17:12:42	69.3	64.2	69.7	65.6	70.2
6	2021/07/08 17:12:57	63.5	67.9	65.9	65.5	60.4
11	2021/07/08 17:13:12	65.5	74.7	70.6	71.3	66.9
16	2021/07/08 17:13:27	61.0	57.7	55.9	56.0	63.5
21	2021/07/08 17:13:42	60.1	55.7	54.8	56.1	54.5
26	2021/07/08 17:13:57	54.8	56.8	63.6	60.8	63.4
31	2021/07/08 17:14:12	59.3	56.7	55.2	55.9	64.2
36	2021/07/08 17:14:27	64.0	58.7	62.4	74.1	68.9
41	2021/07/08 17:14:42	63.1	65.3	67.9	65.6	60.9
46	2021/07/08 17:14:57	59.8	65.4	56.5	55.8	64.2
51	2021/07/08 17:15:12	71.2	63.5	57.1	51.8	59.1
56	2021/07/08 17:15:27	58.3	68.5	63.4	67.6	66.5
61	2021/07/08 17:15:42	63.8	68.7	60.4	52.8	48.6
66	2021/07/08 17:15:57	49.4	50.9	57.0	68.8	65.1
71	2021/07/08 17:16:12	56.2	50.9	50.9	67.8	64.5
76	2021/07/08 17:16:27	54.7	55.7	63.6	62.8	61.5
81	2021/07/08 17:16:42	61.8	71.2	73.6	73.7	69.5
86	2021/07/08 17:16:57	61.4	59.3	57.7	68.5	69.0
91	2021/07/08 17:17:12	74.5	66.9	58.9	66.0	63.4
96	2021/07/08 17:17:27	59.0	63.1	64.4	57.8	61.9
101	2021/07/08 17:17:42	58.4	56.3	59.3	74.9	69.8
106	2021/07/08 17:17:57	61.4	51.8	48.9	54.8	61.0
111	2021/07/08 17:18:12	63.7	70.4	60.7	59.0	52.8
116	2021/07/08 17:18:27	55.9	51.6	56.0	62.6	65.7
121	2021/07/08 17:18:42	63.7	64.3	60.0	59.7	68.0
126	2021/07/08 17:18:57	62.5	54.9	51.7	55.6	70.7
131	2021/07/08 17:19:12	67.3	62.1	61.7	59.3	59.7
136	2021/07/08 17:19:27	61.8	69.2	59.2	52.6	49.2
141	2021/07/08 17:19:42	50.8	48.3	48.2	50.3	47.8
146	2021/07/08 17:19:57	47.0	48.1	47.7	53.7	63.0
151	2021/07/08 17:20:12	60.3	72.5	72.1	63.6	56.6
156	2021/07/08 17:20:27	53.3	58.8	67.7	63.4	59.8
161	2021/07/08 17:20:42	61.8	55.6	58.2	63.8	66.6
166	2021/07/08 17:20:57	66.4	57.6	65.6	63.0	67.5
171	2021/07/08 17:21:12	70.1	72.0	65.6	64.9	56.9
176	2021/07/08 17:21:27	52.0	48.1	47.3	47.1	47.6
181	2021/07/08 17:21:42	47.3	48.8	49.1	48.9	49.7
186	2021/07/08 17:21:57	54.5	64.9	62.5	60.9	58.8
191	2021/07/08 17:22:12	53.9	63.0	63.8	64.3	61.1
196	2021/07/08 17:22:27	65.7	68.1	64.1	66.1	57.7
201	2021/07/08 17:22:42	50.5	48.1	47.4	49.8	56.1
206	2021/07/08 17:22:57	61.4	56.8	55.5	54.1	60.7
211	2021/07/08 17:23:12	66.6	60.4	66.4	56.6	51.1
216	2021/07/08 17:23:27	48.5	48.1	48.3	50.0	60.7
221	2021/07/08 17:23:42	62.3	57.3	54.1	65.8	63.2
226	2021/07/08 17:23:57	67.8	63.3	56.4	51.6	53.3
231	2021/07/08 17:24:12	47.9	48.6	48.6	49.9	51.8
236	2021/07/08 17:24:27	57.6	68.5	71.7	69.1	68.6
241	2021/07/08 17:24:42	65.0	64.8	65.3	62.3	67.1
246	2021/07/08 17:24:57	67.7	60.6	66.2	61.5	54.9
251	2021/07/08 17:25:12	70.6	65.0	56.4	51.1	51.2
256	2021/07/08 17:25:27	61.9	64.4	56.1	48.9	46.8
261	2021/07/08 17:25:42	46.4	46.6	47.0	48.0	48.2
266	2021/07/08 17:25:57	50.0	57.3	67.4	60.6	64.1
271	2021/07/08 17:26:12	58.7	69.1	61.5	67.8	56.6
276	2021/07/08 17:26:27	51.6	53.1	63.8	68.6	64.7
281	2021/07/08 17:26:42	59.7	53.5	51.9	51.7	57.8
286	2021/07/08 17:26:57	71.2	62.6	67.6	59.8	59.1
291	2021/07/08 17:27:12	66.5	57.8	55.8	59.6	69.2
296	2021/07/08 17:27:27	75.9	65.4	62.8	58.7	55.8

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 60.8 - 2021/07/08 17:38:05
- Level Range : 40-100
- SEL : 78.8
- Leq : 49.3
-

No.s	Date Time	(dB)				
1	2021/07/08 17:38:00	46.7	59.5	52.1	49.6	49.1
6	2021/07/08 17:38:15	51.7	51.5	47.5	48.0	47.5
11	2021/07/08 17:38:30	46.7	46.5	46.8	46.8	46.9
16	2021/07/08 17:38:45	46.5	46.2	47.2	46.9	47.4
21	2021/07/08 17:39:00	47.3	49.1	47.8	46.4	45.8
26	2021/07/08 17:39:15	49.7	48.9	47.0	46.0	48.9
31	2021/07/08 17:39:30	53.1	48.4	48.0	46.3	46.1
36	2021/07/08 17:39:45	46.7	47.2	48.0	48.4	49.2
41	2021/07/08 17:40:00	52.3	49.6	48.0	53.7	51.8
46	2021/07/08 17:40:15	51.0	51.0	48.4	49.3	51.7
51	2021/07/08 17:40:30	49.7	50.9	54.1	53.3	52.6
56	2021/07/08 17:40:45	53.1	51.1	49.6	48.5	49.6
61	2021/07/08 17:41:00	48.8	47.7	48.8	48.2	46.7
66	2021/07/08 17:41:15	46.9	46.7	46.6	46.3	48.7
71	2021/07/08 17:41:30	48.3	48.1	47.1	46.1	46.1
76	2021/07/08 17:41:45	46.6	46.8	47.6	47.3	47.3
81	2021/07/08 17:42:00	47.9	48.2	48.9	53.0	50.6
86	2021/07/08 17:42:15	51.1	51.5	50.6	49.3	49.1
91	2021/07/08 17:42:30	48.4	47.9	47.9	48.2	48.2
96	2021/07/08 17:42:45	47.5	47.8	48.8	49.4	49.6
101	2021/07/08 17:43:00	49.4	48.7	48.7	48.7	50.7
106	2021/07/08 17:43:15	49.5	49.3	48.3	48.1	49.6
111	2021/07/08 17:43:30	48.6	49.3	49.6	52.0	49.9
116	2021/07/08 17:43:45	50.9	49.2	49.6	49.3	50.7
121	2021/07/08 17:44:00	48.8	48.5	50.7	48.0	48.1
126	2021/07/08 17:44:15	47.9	47.9	48.0	47.7	47.2
131	2021/07/08 17:44:30	46.9	47.1	48.4	49.9	54.3
136	2021/07/08 17:44:45	51.9	49.0	49.5	48.9	48.0
141	2021/07/08 17:45:00	47.3	47.9	48.7	49.3	51.1
146	2021/07/08 17:45:15	48.9	50.2	49.2	51.3	48.5
151	2021/07/08 17:45:30	48.6	47.7	48.0	47.1	48.3
156	2021/07/08 17:45:45	47.9	47.6	50.7	49.0	48.9
161	2021/07/08 17:46:00	49.6	51.6	49.7	54.0	49.5
166	2021/07/08 17:46:15	50.1	48.7	49.0	50.1	49.2
171	2021/07/08 17:46:30	50.0	48.5	48.3	47.4	47.4
176	2021/07/08 17:46:45	47.4	52.8	49.7	51.6	50.2
181	2021/07/08 17:47:00	48.5	47.6	47.6	47.7	47.9
186	2021/07/08 17:47:15	51.0	47.7	47.6	47.3	48.0
191	2021/07/08 17:47:30	46.3	46.9	46.2	46.4	46.6
196	2021/07/08 17:47:45	46.0	47.5	50.9	52.1	55.1
201	2021/07/08 17:48:00	54.2	52.5	50.2	49.0	48.5
206	2021/07/08 17:48:15	48.4	52.7	57.3	58.5	54.1
211	2021/07/08 17:48:30	51.3	49.6	47.7	46.9	47.3
216	2021/07/08 17:48:45	46.8	47.3	53.3	55.5	54.0
221	2021/07/08 17:49:00	52.2	54.2	51.0	48.9	51.2
226	2021/07/08 17:49:15	49.8	49.1	48.6	47.5	47.6
231	2021/07/08 17:49:30	50.3	49.1	48.9	49.1	48.7
236	2021/07/08 17:49:45	51.7	49.6	47.7	46.6	47.3
241	2021/07/08 17:50:00	47.2	47.5	47.1	46.8	46.7
246	2021/07/08 17:50:15	46.1	45.9	46.2	46.2	46.3
251	2021/07/08 17:50:30	46.6	47.0	46.7	47.5	46.9
256	2021/07/08 17:50:45	46.7	47.2	47.2	48.4	48.1
261	2021/07/08 17:51:00	46.8	46.7	48.0	47.3	46.4
266	2021/07/08 17:51:15	47.6	46.0	45.4	45.9	46.2
271	2021/07/08 17:51:30	46.7	46.4	46.3	46.3	47.0
276	2021/07/08 17:51:45	47.9	47.5	47.7	46.9	46.6
281	2021/07/08 17:52:00	46.5	46.4	46.5	46.9	47.6
286	2021/07/08 17:52:15	47.9	47.3	47.6	46.5	46.3
291	2021/07/08 17:52:30	46.3	46.4	46.1	46.1	46.4
296	2021/07/08 17:52:45	47.0	47.0	46.8	46.6	46.1

Model CSSB-2
Construction Site Sound Blankets

eNoise Control
129 Penn St, Westfield, IN 46074
Phone 888.213.4711 Fax 317-774-1911

Product Features:

- Weatherproof
- Outdoor use/Sheds water
- 2” thick, quilted exterior rated facing
- Grommets for easy attachment to a fence
- STC-21, estimated 10-20 decibel reduction
- In-stock option for quick ship

eNoise Control’s Construction Site Sound Blankets are used to block noise on construction sites, drilling sites, compressor stations, and other outdoor noise sources. Our Model CSSB-2 consists of a UV resistant, heavy duty 10 ounce per square yard vinyl coated polyester (VCP) facing on both sides of a nominal 2” thick quilted fiberglass. Sound Blankets are constructed with grommets and sewn with Gore Tenara exterior grade thread for maximum longevity. The sound blankets can simply be zip-tied to your existing chain link perimeter fence, wood fence, jersey barrier fencing, or support framing.

Specification:

Supply weatherproof, exterior-rated quilted sound blankets for sound barrier and visual barrier at construction site perimeter. Material shall be nominal 2” thick, diamond stitched UV resistant 10 ounce per square yard vinyl coated polyester (VCP) faced both sides. Sewn using exterior-rated Gore Tenara thread. Grommets integrated into blankets for securing to job site fencing. Minimum STC-21 rating. Minimum NRC-0.75 rating. Secure blankets with no visual gaps at joints and tight to ground level, complying to manufacturers installation guidelines. Use Model CSSB-2, Construction Site Sound Blanket manufactured by eNoise Control, 129 Penn St, Westfield, IN 46074, 888.213.4711, info@enoisecontrol.com.

Technical Data:

Facing	UV resistant, weather proof VCP both sides
Thickness	Nominal 2.00” [1.5” post fabrication]
Standard Width	48”
Weight	0.50 lb-psf
Temperature Range	-40° to +180°F
Sound Data Summary	STC-21, NRC-0.75

SOUND ABSORPTION (ASTM C-423)						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
.46	.94	.85	.64	.47	.33	.75

SOUND TRANSMISSION LOSS (ASTM E-90 & E-413)						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	STC
9	14	19	21	27	34	21

Groundborne Noise and Vibration Modeling

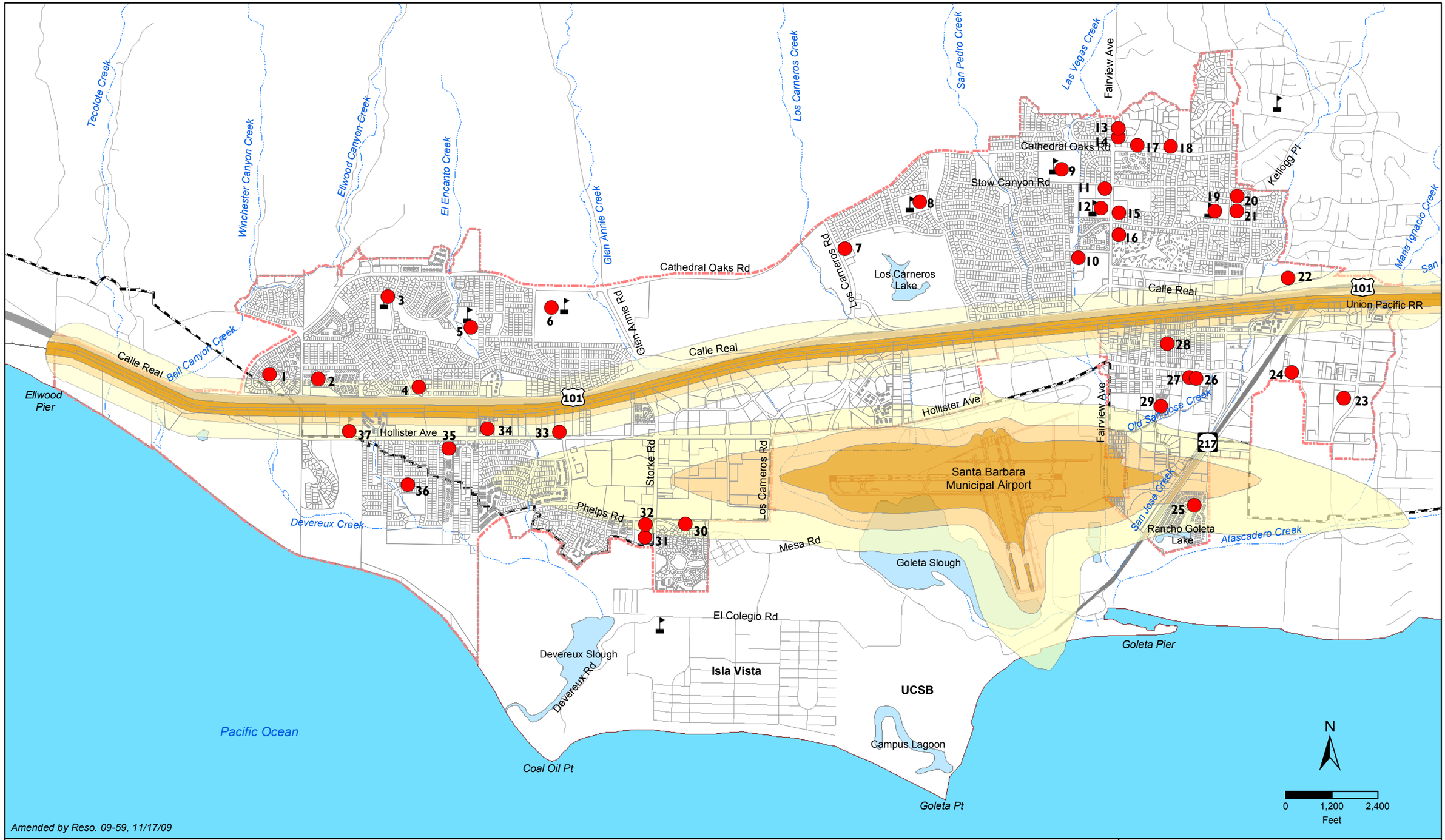
Notes
The reference distance is measured from the nearest anticipated point of construction equipment to the nearest structure.

	Reference Level Inputs			
Equipment	**PPV_{ref} (in/sec)**	**Lv_{ref} (VdB)**	**RMS_{ref} (in/sec)**	**Reference Distance**
Vibratory Roller	0.21	94	0.050	25
Hoe Ram	0.089	87	0.022	25
Large bulldozer	0.089	87	0.022	25
Caisson drilling	0.089	87	0.022	25
Loaded trucks	0.076	83	0.014	25
Jack hammer	0.035	79	0.009	25
Small bulldozer	0.003	58	0.001	25

	Vibration Level at Receiver			
Equipment	**Distance (feet)**	**PPV_x (in/sec)**	**Lv_x (VdB)**	**RMS_x (in/sec)**
Vibratory Roller	85	0.0547	82	0.013
Hoe Ram	135	0.0139	71	0.004
Large bulldozer	85	0.0232	75	0.006
Caisson drilling	135	0.0139	71	0.004
Loaded trucks	85	0.0198	71	0.004
Jack hammer	135	0.0055	63	0.001
Small bulldozer	135	0.0005	42	0.000

	Vibration Contours		
	Distance to (feet)		
Equipment	**0.200 PPV**	**72.0 VdB**	**0.0080 RMS**
Vibratory Roller	26	250	133
Hoe Ram	12	120	64
Large bulldozer	12	120	64
Caisson drilling	12	120	64
Loaded trucks	10	79	42
Jack hammer	5	52	28
Small bulldozer	1	6	3

Source
California Department of Transportation (Caltrans). 2013. Transportation and Construction Last Updated: 4/11/2019



Amended by Reso. 09-59, 11/17/09

Legend

Noise Levels(CNEL)

- 70dBA
- 65dBA
- 60dBA

Other Features

- Noise Monitoring Locations
- Goleta City Boundary
- Coastal Zone
- Creeks
- Schools

Source: (1) Airport noise contours are based on the Santa Barbara Airport F.A.R. Part 150 Noise Compatability Study (January 2005).
(2) Railroad noise contours are based on modeling by RBF Consulting (October 2003).

Note: Noise monitoring site numbers correspond to Table 9-1: Field Noise Measurements at Noise Sensitive Locations.

Figure 9-2
EXISTING (2003) NOISE CONTOURS-AIRPORT AND RAILROAD

GENERAL PLAN/COASTAL LAND USE PLAN
November 2009

CITY OF GOLETA